ATEC Console Preventive Maintenance

Power On Pre-service Checks **Console S/N** _____

Scope:
This section to be used to evaluate console and record initial setting prior to accomplishing the preventive maintenance check.

Tools & Materials:
Electrical Safety Analyzer
Pressure gauge capable of measuring 100psi (preferred 1% accuracy or better)
Vacuum gauge capable of measuring 29inHg (preferred 1% accuracy or better)
Pressure and vacuum adapters for console interface fittings
ATEC Service Manual
Stopwatch

Notes:
Use caution when handling handpiece, needle and inner cannula are very sharp. The protective sheath should remain in place at all times.
Use caution when working on console internal component with power applied to console.

Procedure:

☐ Measure and record ground cord resistance and current leakage.
Plug console into electrical safety analyzer, connect ground test lead and turn console power on.

_____ uA >300uA _____ mOhm *>500mOhm*

☐ Record cycle counter and hour meter readings from internal LCD.

_____ Cycles _____ Hours

Turn power switch off and disconnect power cord from safety analyzer.
Remove ground test lead.

☐ Plug console into wall outlet and turn power switch on.
Console should beep and default to the Biopsy mode; Biopsy LED lit.
Pinch valve should move to the down (closed) position.
Check cooling fan operation.
Upper fan blowing out.
Lower fan blowing in.

☐ Test Setup mode function and check saline pinch valve function.
Plug blue connector of the vacuum inlet line with thumb.
Press Setup button; pinch valve should move to the up (open) position.
Vacuum ready light should become solid immediately after pressing Setup button.
Press Biopsy button; pinch valve should move to the down (closed) position and vacuum should stop.
NOTE: If console fails this step contact Suros technical support department before continuing.

☐ Measure total vacuum draw down level and record. _____ InHg
Attach vacuum gauge to the vacuum inlet line.
Press the Setup button and read vacuum level.
Vacuum ready light should illuminate immediately.
Vacuum level should reach a minimum of 26.5 InHg within 5 seconds.
Press the Biopsy button to return the console to the Biopsy mode; vacuum should drop to zero.
NOTE: If console fails this step contact Suros technical support department before continuing.

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Power On Pre-service Checks (Continued) **Console S/N** _____

☐ Measure cylinder (black) line pressure and record. _____ PSI

Connect pressure gauge and small colder fitting adapter to the black connector on right user interface.
Verify console is in the Biopsy mode and record stabilized pressure.
Turn console power off.
Remove adapter and gauge by pressing on lock collar of colder fitting.

☐ Attach ATEC handpiece and vacuum canister.

Place canister in the canister well and attach vacuum inlet line to the top port of the canister.
Place handpiece on the console tray and attach vacuum line to the side canister port.
Attach the black line to the black cylinder connector on the right user interface panel.
Attach the red line to the red air motor connector on the right user interface panel.
Place clear portion of vacuum line in the pinch valve; verify saline spike cover installed.
Do not attach saline bag to test handpiece.
Turn console power on.
Console should beep and default to the Biopsy mode.
Press Setup button and verify the vacuum ready light becomes solid; does not flash; within 10 sec.
If vacuum ready light flashes, check for vacuum leaks at the cannister and needle sheath.

☐ Verify Test mode function.

With console in the Setup mode and a solid vacuum ready light press the Test button.
Handpiece should cycle one time and default to the Biopsy mode; Biopsy LED lit.
Air motor rotation should be audible during handpiece cycle.
Note any descrpencies and continue with checks.

☐ Verify Biopsy mode function and leak check footswitch assembly.

Verify there is no air leakage from footswitch or footswitch connectors.
Depress footswitch and verify the handpiece continues to cycle after acquiring vacuum ready light.
Verify there is no air leakage from footswitch or footswitch connectors.
Release footswitch, verify air discharges from the bottom of the footswitch and handpiece stops.
Cycle footswitch several times and verify that air discharges from bottom when released.

☐ Measure non-MRI air motor (small red) line pressure and record. _____ PSI

Test for **Pearl** and **Sapphire** consoles only.
Disconnect handpiece air motor line.
Connect pressure gauge and small colder fitting adapter to the small red connector.
Depress footswitch and allow handpiece to cycle.
Read peak air motor pressure during cycling and record.
Release footswitch, remove pressure gauge and reinsert handpiece air motor line.

☐ Measure MRI air motor (large red) line pressure and record. _____ PSI

Test for **Emerald** and **Sapphire** consoles only.
Disconnect handpiece air motor line.
Connect pressure gauge and large colder fitting adapter to the large red connector.
Depress footswitch and allow handpiece to cycle.
Read peak air motor pressure during cycling and record.
Release footswitch, remove pressure gauge and reinsert handpiece air motor line.

☐ Check cycle timing of handpiece and record. _____ Seconds

Depress footswitch and allow handpiece to cycle.
Measure time between beeps at the end of the handpiece cycle.
Release footswitch.

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ATEC Console Preventive Maintenance

Power On Pre-service Checks (Continued) **Console S/N** _____

☐ Turn console power off and disconnect all handpiece connections.

☐ Measure and record main regulator setting. _____ PSI

Disconnect pneumatic line from left air motor regulator to the pressure dump valve at the regulator.
Press on tubing release collar and pull pneumatic line straight out of instant fitting.
Connect pressure gauge to the tube out of the dump valve.
Turn power switch on and record stabilized pressure.
Turn power switch off and disconnect pressure gauge.
Do not reconnect pneumatic tubing at this time.

☐ Remove power cord from wall outlet.

Notes: _____

Completed By: _____ **Date:** _____

Continue to preventive maintenance procedure checklist.